ENGINEERING SERVICES –
PROJECT ENGINEERING, PLANNING, MANAGEMENT, EXECUTION
AND FLEET TECHNICAL SUPPORT

1 BACKGROUND. Pearl Harbor Naval Shipyard & Intermediate Maintenance Facility (PHNSY&IMF) is a US Navy regional industrial center that maintains, overhauls, and repairs various vessels of the US Navy. Its industrial operations provide the US naval forces with a wide range of services and resources located on the island of Oahu, Hawaii, with direct and indirect support to submarines, surface vessels, and shore based activities in the Pacific.

2 SCOPE. This PWS is for a Firm Fixed Price (FFP) Level of Effort Task Order for Contractor employee(s) to perform engineering and project support services at PHNSY&IMF. The purpose of this contract is to provide project planning and execution services in Code 200, Engineering and Planning Department (EPD), to support ship systems maintenance and repair on surface craft and submarines during availabilities at PHNSY&IMF. Potential contractor will need to provide engineering support services in the following areas: 1) Advanced Industrial Management (AIM) planning and Technical Work Documents (TWDs); 2) Project Trouble Desk, Work Control and Testing; 3) Project planning/management and configuration control and 4) Fleet Technical Support to support ship systems maintenance, repair, and testing. Some of the documents involved are Submarine Safety (SUBSAFE), Deep Submergence Systems-Scope of Certification Work (DSS-SOC), Fly-By-Wire Ship Control Systems (FBW SCS) and/or Level 1. Overtime up to 5% may be required to support emergent requirements. Overtime shall be approved by the Contracting Officer or Contracting Officer Representative (COR). No travel costs or per diem is authorized for this PWS.

3 APPLICABLE DOCUMENTS:

3.1 NAVSEAINST 4855.34 Qualification of Activities to Perform SUBSAFE, Fly-By-Wire Ship Control Systems, and Deep Submergence Systems-Scope of Certification Work;

3.2 NAVSEANOTE 5000, Activities Authorized to Perform SUBSAFE, FBW SCS and DSS-SOC Work

3.3 NAVSEA 0948-LP-045-7010 Material Control Standard

3.4 NAVSEA 0924-062-0010 SUBMARINE Safety Manual (SUBSAFE) Requirements Manual

3.5 NAVSEA T9044-AD-MAN-010 Requirements Manual for Submarine Fly-By-Wire Ship Control Systems

3.6 SS800-AG-MAN-010/P-9290 System Certification Procedures and Criteria Manual for Deep Submergence

3.7 NAVSHIPYD&IMFPEARLINST 5100.17 Submarine Safety, Deep Submergence Systems and Fly-By-Wire Ship Control Systems Programs (Non-Nuclear)

4 REQUIREMENTS:

PHNSY&IMF requests Contractor personnel with recent engineering experience in project planning/management/testing, estimating, and specification writing experience for the following systems:

Mechanical - Hydraulics, valves (seawater, steam, air, oxygen), piping, propulsion machinery, auxiliary machinery, and SUBSAFE, DSS-SOC, FBW SCS and/or Level 1 requirements.

Structural - Maintenance Requirement Cards (MRC) inspection/repair and SUBSAFE, DSS-SOC, FBW SCS and/or Level 1 requirements. Assist in performing structural inspections shipboard and in-shop.

Electrical - Power Distribution (switch boards, circuit breakers, power panels) and Generation, Ship Controls (navigation, communications, indications, control panels) Motors, Temporary Services and SUBSAFE, DSS-SOC, FBW SCS and/or Level 1 requirements.

Combat - Weapons Delivery Systems (Torpedo Tubes, Torpedo Ejection Pumps), 3" Launchers, Sail Systems & Components, Fire Control, Towed Array, and SUBSAFE, DSS-SOC, FBW SCS and/or Level 1 requirements.

Note: All evaluation/recommendations provided via documents prepared by the Contractor shall be reviewed and approved by the Technical Leads (TL) prior to issuance. In addition, the Government's TL will answer questions and resolve all problems concerning technical requirements.

Contractor support will be required as follows:

	Number of Contractors				
PWS Paragraphs	Base year	Option Year 1	Option Year 2	Option Year 3	Option Year 4
4.1 TWD Development	10	15	15	15	15
4.2 Project Trouble Desk					
4.3 Work Control and Testing	1	2	2	2	2
4.4 Project Engineering, Management, Planning	1	6	6	6	6
4.5 Configuration Management	1	1	1	1	1
4.6 Material Planning	1	3	3	3	3
4.7 Fleet Tech Support	1	3	3	3	3
4.8 Surface Ship	1	2	2	2	2
Total	16	32	32	32	32

4.1 Technical Work Document Development. The Contractor shall prepare and review TWDs (includes Task Group Instructions (TGIs) and Deficiency Logs/Forms (DLs/DFs)) using the Government's AIM/AIMxp computer program. These TWDs provide instruction in performing systems maintenance, repair, and testing on naval vessels. A fair amount of these TWDs and referenced drawings will contain classified or Naval Nuclear Propulsion Information (NNPI). Contractor TWD development tasks include:

4.1.1 Material research and initiating a Job Material List (JML).

4.1.2 Preparing Quality Assurance (QA) documents.

4.1.3 Researching drawings using Advanced Technical Information Support (ATIS) & Ship's Drawing Index (SDI).

4.1.4 Compiling Allowance Parts Lists (APL).

4.1.5 Reviewing already completed AIM documentation to identify and provide recommended resolutions to technical problems or deficiencies.

4.2 Project Trouble Desk Support. The Contractor shall support the Trouble Desk of waterfront availabilities by:

4.2.1 Evaluating reported deficiencies and recommending a resolution. Being able to provide resolutions to these deficiencies will require access to classified and NNPI information. The resolution provided will go through review and concurrence/approval by the TL.

4.2.2 Performing shipchecks of systems and components, as needed to aid in providing a recommended resolution to the deficiency (e.g., need for repairs or removal as interference).

4.3 Non-Nuclear Work Control and Testing Support. The Contractor shall assist in the administrative direction and coordination of Hull, Mechanical and Electrical (HM&E) Non-Nuclear testing, including scheduling and planning and all Non-Nuclear work control for work performed by PHNSY&IMF. Work control consists of maintaining and controlling conditions and systems status relative to all shipboard work and testing (including Ship's Force and Outside Activities) during Shipyard availabilities. The Contractor shall support project Work Control and Testing as follows:

4.3.1 Ensuring work control and test documents are prepared efficiently and to ensure work will be released to the shop to allow timely work/testing evolutions.

4.3.2 Sequencing of work effectively and efficiently, requiring knowledge of total ship operability co-mingled with overhaul/repair/test procedures and requirements. Also, evaluating on a daily basis, status of shipboard systems.

4.3.3 Preparing detailed test procedures based on NAVSEA derived specifications. NAVSEA specifications and test procedures contain classified and NNPI information.

4.3.4 Reviewing Authorized Work Package (AWP) to assist in formulating an integrated test schedule and ensuring adequacy of authorized testing.

4.3.5 Reviewing test procedures prior to issuance and after completion of testing to ensure all shipyard responsible items have been tested and test results are satisfactory.

4.3.6 Evaluating and providing recommendations to Chief Test Engineer (CTE) to progress and coordinate the execution of work authorization, work completion, testing, and operations necessary to progress test priorities and meet project test schedules. Informing the CTE/Assistant Chief Test Engineer (ACTE) of any delays or developments that warrant re-evaluation of priorities or affect ability to meet project schedules.

4.3.7 Providing support to all Test Directors and Work Control personnel assigned by making recommendations to resolve any work control and testing problems.

4.3.8 Mentoring Government personnel in the areas of Work Control and Testing (e.g., key event readiness, project test schedules).

4.4 Project Engineering, Management & Planning Support. The Contractor shall provide quality, timely and within budget planning support to meet major and minor availability schedules. Support includes:

Issuing planning products, estimates, work specifications and material procurement documents in support of project schedules and goals; and maintaining accurate planning product status throughout the various planning stages to ensure positive cost and schedule performance. Contractor tasks shall include:

4.4.1 Reviewing and monitoring all work for planning and execution.

4.4.2 Planning and scheduling work assignments, taking into consideration deadline dates and man-hour capacities; taking appropriate steps to ensure adequate progress of work; coordinate activities of subordinate groups, establish priorities for their cognizant workload and workforce.

4.4.3 Consulting with Technical Divisions to determine how work should be broken down into job summaries and properly assigned to cognizant code.

4.4.4 Assisting in establishing and maintaining appropriate databases, e.g. Job Summary (JSs) and Task Group Instructions (TGIs) to ensure all work can be tracked and certified complete at the end of a project.

4.4.5 Assisting Project Team with monitoring progress of work and schedule adherence by ensuring all work (including new work and work changes) can be tracked, properly accounted for and certified complete at the end of the project.

4.4.6 Confirming that all requested changes have been addressed and resolved.

4.4.7 Assisting in developing execution and planning strategy; developing and adhering to the Project Planning Timetable.

4.4.8 Ensuring commitment dates are established and met for Job Summaries, TGIs, DFs and material orders.

4.4.9 Providing data from various databases and reports such as financial forecasts, manning requirements, planning progress and key event closure requirements.

4.4.10 Mentoring new project personnel on project teams in pre-availability planning and execution, including training on the AWP. Advising newly assigned project personnel on the different Excel spreadsheets and other tools used to monitor Project progress.

4.4.11 Accomplishing preparation and review of Job Summaries and Job Planning products, preparation and maintenance of the Project schedule and validation that the work issued accomplishes the line items in the AWP.

4.4.12 Reviewing and evaluating the Project's AWP, the applicable Ships Planned Maintenance System (PMS) and Current Ship's Maintenance Project (CSMP) to determine the Ship's Force (SF) PMS Component Unit (CU) phases required for that particular availability. Work that needs to be reviewed includes non-nuclear and nuclear interface. Preparing, issuing and integrating required CU phases into the project network to be used in generating milestones and key events. Upon Ships arrival and Project start up, coordination and working closely with the ship and the project to better define the actual PMS required for scheduling and tracking.

4.4.13 Creating and issuing AIM CU phases for ship force work for upcoming submarine availabilities and projects in execution and submarines in pre-planning for upcoming submarine availability.

4.4.14 Reviewing and revising SF CU Phases of scheduled project maintenance and testing. Reviewing and evaluating CSMP changes and either issue additional SF CU Phases or revise existing CU Phases as needed.

4.4.15 For submarines in shorter availabilities, issuing and/or revising work instructions (CU phases) for Ship's Force.

4.4.16 Providing planning support to availabilities nearing or at completion. Preparing and issuing additional SF CU Phases as requested for Project tracking and scheduling.

4.5 Configuration Management Support. The Contractor shall provide support in the maintenance of the ship's selected records which includes drawings and records that contain classified and NNPI information. Contractor tasks shall include:

4.5.1 Providing Technical Variance Document (TVD) and Ship Selected Records (SSR) reviews of certified work documents for reportable changes to Planning Yards for all projects.

4.5.2 Providing for central coordination of the Departures from Specifications (DFS) and Liaison Action Requests (LAR) programs.

4.5.3 Managing and reporting an accurate and complete Integrated Logistics Support (ILS)/Ship Configuration and Logistics Support Information System (SCLSIS) or Coordinated Ships Allowance List (COSAL) of assigned ships.

4.5.4 Identifying logistic problems and completing staff work leading to logistic problem resolution.

4.5.5 Monitoring and controlling progress to ensure timely and accurate delivery of ILS data.

4.5.6 Providing department support in the control and maintenance of all technical data and documents in Code 200.

4.5.7 Mentoring in the areas of ship configuration control Selected Record Drawings (SRDs), TVDs, DFSs and LARs. These documents include adjudications that involve non-nuclear and nuclear interface systems and need to be thoroughly understood to determine required system drawing revisions.

4.6 Material Planning Support. The Contractor shall provide timely identification, ordering, and successful acquisition and delivery of materials/services, while meeting constantly changing critical schedules, in support of major and minor availabilities and Ship Alteration (SHIPALT) or repair. Contractor tasks shall include:

4.6.1 Conducting reviews and processing JMLs created for ordering alteration material both Long-Lead Time Material (LLTM) and stock available material. Collaboration with Ship Availability Planning and Engineering Center (SHAPEC) and EPD codes to ensure JMLs are technically complete and accurate.

4.6.2 Reviewing and assessing alterations for installation onboard submarines undergoing maintenance at PHNSY&IMF.

4.6.3 Coordinating and communicating project alteration material tracking status to the Material Response Team for all projects.

4.6.4 Ensuring that all non-nuclear/nuclear alteration materials are ordered and tracked.

4.6.5 Communicating deficiencies to SHIPALT Coordinator for resolution.

4.6.6 Reviewing JMLs in active status (ACT) and routing to personnel based on job/material type (i.e., mechanical, electrical, hazardous materials).

4.6.7 Conducting JML reviews to validate the accuracy and correctness of material in accordance with non-nuclear/nuclear technical drawings and inspection requirements.

4.6.8 Communicating with SHAPEC for clarity, ensuring that JMLs for Pre-Arrival Testing (PATs), Post Availability Testing (POTs), and Pre-fabrication requirements are prioritized and processed.

4.6.9 Communicating with Code 500/510 for the receipt and processing of LLTM items from iFORECAST and CHURN (shipyard applications) Analysis Listings during pre-planning stage of the project.

4.6.10 Ensuring the processing of Non-standard items, in particular, those that require Technical Data Package (TDP), are Controlled Industrial Material (CIM), or other inspection coded items by scheduled need date.

4.6.11 Communicating with EPD Tech Codes on items that may require secondary review.

4.6.12 Receiving, screening, and processing Material Control Division (MCDs) as required by Submarine Project Planning Group (SPPG) Project Material Manager (PMM).

4.6.13 Communicating with PMM regarding material with frustrated status (backordered/delayed in which the estimated arrival date of the material far exceeds the need date) to research alternate item ordering.

4.6.14 Being able to use government applications Business Office, MRQT, MAT to create various reports.

4.7 Fleet Technical Support. The Contractor shall provide immediate technical assistance to investigate problems affecting ships' major systems during repair/overhaul. Contractor will need to possess special skills and components/system knowledge to provide technical support service for complex shipboard systems, subsystems and associated components/equipment onboard the Pacific Fleet Ships including submarines and surface ships. Contractor tasks shall include:

4.7.1 Identifying complex technical problems and providing rapid analysis and resolutions to maintain combat readiness.

4.7.2 Providing oversite on repairs by Ship's Force or maintenance activities.

4.7.3 Conducting inspections, testing and functional check-out/demonstration of major shipboard systems.

4.7.4 Providing oversite of grooms, adjustments and repairs of shipboard systems.

4.7.5 Conducting material inspections to determine material condition, compliance with installation objectives and state of operability of system(s) assigned.

4.7.6 Accomplishing shipboard investigation (e.g., shipchecks).

4.7.7 Conducting functional checkout of completed system modifications and indoctrination of organizational-level personnel in new operational/maintenance procedures associated with modifications installed.

4.7.8 Mentoring of Ship's Force and military and civilian personnel assigned to Fleet Technical Support Division on troubleshooting, assessing and diagnosing problems and provide training on the operation of complex electronic and HM&E systems installed on Submarines and Surface ships.

4.7.9 Participating in Total Ship Readiness Assessment (TSRA) events.

4.8 Surface Ship Support. The Contractor shall provide support to surface availability project team in the maintenance, repair, and modernization of surface craft as follows:

4.8.1 Reviewing work specifications ensuring compliance to the requirements of tasking documents, naval standards are invoked, and final acceptance testing will validate work performed.

4.8.2 Coordinating resolution of technical issues during availability execution (i.e., DFS, Condition Reports, LARs) and ensuring that non-conformances are documented and action is taken to resolve or technically adjudicate.

4.8.3 Preparing and delivering training plans and products as required to the division and the ship.

4.8.4 Preparing engineering reports and correspondences related to specific work projects on assigned ships.

4.8.5 Receiving Objective Quality Evidence (OQE) for completed test procedures from all maintenance activities and evaluating results for completeness and accuracy.

4.8.6 Coordinating ship availability technical closeout documents to ensure all technical related documents have been properly answered and/or adjudicated.

4.8.7 Issuing a final report, at the completion of availability, showing completion of testing and/or outstanding tests that remain with reasons and plans for completion.

4.8.8 Providing guidance to new Project Support and Integrated Test Engineers.

4.9 SUBSAFE, FBW SCS, DSS-SOC and LEVEL I work. Tasking applicable to section 4 above may involve SUBSAFE, FBW SCS, DSS-SOC and LEVEL I documentation. Contractor employees should have knowledge and experience in SUBSAFE, FBW SCS, DSS-SOC and LEVEL I requirements as defined by Applicable Documents listed in section 3 above.

4.9.1 The government shall review and approve all contractor SUBSAFE, FBW SCS, DSS-SOC and LEVEL I work to ensure that all applicable technical and SUBSAFE, FBW SCS, DSS-SOC and LEVEL I requirements are formally invoked as required by applicable documents listed in section 3 above. The approval process shall ensure that the contractor employee's name appears on each document in a manner that can be queried for audit purposes.

4.9.2 This specification shall serve as a Memorandum of Agreement (MOA) between Pearl Harbor Naval Shipyard & IMF and the Contractor to satisfy the requirements of NAVSEA interim guidance for

outsourcing of SUBSAFE, FBW SCS, DSS-SOC and LEVEL I work.

5 TRAINING REQUIREMENTS:

5.1 PHNSY&IMF Provided Training:

i) SUBSAFE/DSS-SOC/FBW SCS/LEVEL I Qualification training
   (1) Contractor personnel must be able to satisfactorily complete PHNSY&IMF SUBSAFE/DSS-SOC/FBW SCS/LEVEL I Qualification training requirements per the paragraph 3.7 instruction after the first attempt. Failure to obtain PHNSY&IMF SUBSAFE/DSS-SOC/FBW SCS/LEVEL I Qualification shall result in ineligibility to work for this Task Order.
ii) Ship Safety (6010)
iii) Applicable shipyard safety and computer/physical security briefs
iv) Safety/Environmental Awareness

5.2 Contractor Required Training:

i) All training shall be accomplished prior to arrival by all contractor personnel.
ii) Proof of accomplished training by the contractor shall be submitted to the government within fourteen (14) calendar days of receiving the Task Order award.
iii) Required Training:
   (1) Confined Space Safety - Task Order personnel provided must be trained in accordance with 29 CFR 1915 Subpart B.

6 SECURITY AND ACCESS REQUIREMENTS:

6.1 Some references and deliverable items associated with this contract are classified and involve nuclear interface. Contractor will have and maintain a Secret facility clearance. All contractor personnel must be U.S. citizens, have and maintain final Personnel Clearances (PCLs) when performance starts. This contract does not allow the Contractor to remove or safeguard classified or Controlled Unclassified Information (CUI) outside of PHNSY&IMF spaces. The Contractor shall comply with the Department of Defense Security Classification Specification (DD Form 254) listed in Section 8 of the contract, that itemizes the basic security access requirements and guidance for this contract. Revisions to the DD Form 254 and its attachments shall be requested by the COR to the PHNSY&IMF Security Contracting Officer (Code 1123), as needed. Non-compliance with the DD form 254 will be considered a material violation of the contract. Should contractor personnel receive or suspect they have learned classified information CUI beyond their level of clearance and/or need to know; the Contractor shall identify and immediately report suspicions to the COR. The Contractor will also require access to CUI including with developers or integrators.

Contractor personnel will be required to obtain RED Shipyard Access Control Badges (SACBs) upon task award. The Contractor shall ensure their personnel's applicable investigations are up to date in their Defense Information Security System (DISS) records with final Secret security access level and Restricted Data (RD) access granted by its facility; in addition to submitting a visit request form in accordance with the contract's DD Form 254.

Contractor personnel will require any or all of the following: unescorted entry to PHNSY&IMF Nuclear Work Areas, Controlled Nuclear Information Areas, viewing of classified materials (i.e. Naval Nuclear Propulsion Information, Restricted Data and/or Secret National Security Information (NSI), entry into submarine propulsion plant spaces, and access to the PHNSY&IMF local area network and NIPRNET (no access to SIPRNET or SECNET).

The Contractor shall follow all safety, environmental, security equirements as outlined in Appendices I, II, III, and IV.

Contractor performing services shall be required to comply with all Federal, State, County, City, and PHNSY&IMF rules, regulations, and training that are applicable to conduct, safety, and procedures governing site entry and exit. Contractor personnel may be escorted when working in sensitive areas, as required. The COR will make arrangements to provide escort service if required.

6.2 **Disclosure:** This project, all materials provided to the Contractor by the Government, test results, conclusions, and recommendations obtained thereof from the Contractor shall be considered Government property. The information shall not be disclosed, copied, modified, used (except to fulfill contract requirements) or otherwise disseminated to any other person or entity at any time to include, but not limited to, inclusion in any database external to the Government without Government's express consent.

6.3 Contractor employees must obtain a Common Access Card (CAC) and provide all necessary documentation to obtain access to government computer systems (NIPRNET, OneTouch, etc.).

6.4 Contractor employees shall clearly identify themselves as a Contractor (i.e. company shirt, badge, company identification) in a visible location on the front of exterior clothing, above the waist, (except when safety or health reasons prevent such placement). Identification badges shall be worn at all times when performing work.

7 OTHER REQUIREMENTS:

7.1 The Contractor shall ensure a local project manager/supervisor is available to serve as a liaison between the government and contractor personnel to coordinate efforts and communicate feedback and/or problems.

7.1.1 The Contractor shall provide a monthly detailed report of all tasks completed by the Contractor's employees for each associated month. This report shall be electronic, typed, organized, and provided to the Contracting Officer's Representative (COR) no later than 14 days after the end of each month.

7.2 When on-site Contractor shall:

7.2.1 Post a sign at his/her work station with his/her name and contractor company name.

7.2.2 Ensure that the signature block of all written correspondence, electronic (e-mail) or otherwise, includes the contractor company name.

7.2.3 Shall ensure that the contractor company name is included in any identifying remarks, including, but not limited to, answering the phone, identifying oneself at meetings, and answering machine salutations messages.

8 Safety and Environmental Requirements

8.1 Contractor must follow all safety requirements as described in appendix I

8.2 Contractor must follow all environmental requirements as described in appendix II

8 Appendices

8.1 APPENDIX I – SAFETY AND HEALTH WORK PRACTICES FOR CONTRACTORS WORKING WITH PEARL HARBOR NAVAL SHIPYARD AND INTERMEDIATE MAINTENANCE FACILITY (PHNSY&IMF) (REV 08-JUL-2021)

8.2 APPENDIX II – ENVIRONMENTAL PROTECTION GUIDELINES FOR THE CONTRACTORS ON FACILITIES PROJECTS AT PEARL HARBOR NAVAL SHIPYARD & INTERMEDIATE MAINTENANCE FACILITY (REV 16-OCT-2019)

8.3 APPENDIX III – DEPARTMENT OF DEFENSE CONTRACT SECURITY SPECIFICATION (DD FORM 254), (DATED 28-SEPT-2022)

8.4 APPENDIX IV – Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility Operations Security (OPSEC) Contract Requirements (REV 21-MAR-2022)